

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Page 2, paragraph beginning on line 1:

The above heat conducting media and electrical heaters are conventionally employed in the heating of reactors in a laboratory or of bench-scale size.

Page 2, paragraph beginning on line 5:

It is further known to heat different catalyst structures electrically. Those methods are typically used in catalytic purification of automobile exhaust and for start-up procedures in catalytic converters (US Patent Nos. 5,070,694; 5,456,890; and 6,109,018.)

Page 2, paragraph beginning on line 5 and ending on line 22:

The reactor of this invention consists in its broadest aspect of a metallic ingot comprising at least one reaction passage extending through the ingot and being adapted to hold a catalyst for non-adiabatic conversion of a feedstock[;]. Provided are inlet passages for introduction of the feedstock into the reaction passage and outlet passages for withdrawing reacted feedstock, the inlet and outlet passages being provided within the ingot; and. Also provided are means for heat heating or cooling the ingot and the reaction passage to maintain the catalytic non-adiabatic conversion of the feedstock.

Page 2, paragraph beginning on line 24:

Materials and dimensions of the reactor and different passages will be selected in accordance with the intended application of the reactor. Convenient metallic materials are those that have proper heat conducting properties and are ~~mechanical~~ mechanically and ~~chemical~~ chemically stable at operation conditions.

Page 3, paragraph beginning on line 4:

A convenient method to construct the above reactor will be drilling one or more reaction ~~passage~~ passages through a metallic ingot or block. Typically, the reactor contains a number of reaction passages, wherein the passages are drilled in series of parallel rows through the ingot and supplied with the feedstock through drilled passages extending in a substantially perpendicular direction to the reaction passages and thereby being connected with the reaction passages in a parallel manner. Preferably, in a multi reaction passage reactor of the above type each row of reaction passages will be connected with an inlet passage at the inlet side of the reactor. In a similar manner, reacted feedstock is withdrawn from the reactor through outlet passages ~~parallel~~ connecting with the reaction passages at the outlet end of the reactor and being drilled within the ingot in a substantially perpendicular direction to the reaction passages.

Page 3, paragraph beginning on line 26:

When employing the inventive reactor in praxis, catalyst is loaded into the reaction passages either in the form of particles or as a coating, film or paint on the inner wall of the reaction passages. The reaction passages are closed fluid tight ~~closed~~ at the top and bottom end ends by conventional means prior to operation of the reactor.

Page 4, paragraph beginning on line 6:

A reactor 2 according to a specific embodiment of the invention consists of metallic blocks 4 and 6. Blocks Block 4 and 6 are provided with a series of parallel reaction channels 8 and 10 drilled through the blocks. Each series of channels is connected to main feed inlets 12 and 14 connecting each row of channels 8 and 10 in parallel.

Page 4, paragraph beginning on line 16:

Each of blocks 4 and 6 is further provided with a number of electrical heating strips 26 and 28 within outer surfaces of block 4 and strips 30 and 32, within outer surfaces of block 6, or in groves grooves (not shown) in the surface. The blocks are collected within a common shell 34 provided with shelves 36 to support insulating material (not shown) at the outer surface of shell 34.

Page 4, paragraph beginning on line 25:

When employing the above described reactor in the preparation of hydrogens by catalytic cracking of alcohol, channels, shown as series of rows 8 and 10 in the Figure, are loaded with conventional cracking catalyst, e.g., in the form of particles.

Page 5, paragraph beginning on line 1:

Alcohol containing feed gas is introduced into the reactor via main inlets 12 and 14 and distributed to channel rows 8 and [[1]] 10.